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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,349	10/15/2004	Denis Eugene	5510	9877

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SHOEMAKER AND MATTARE, LTD  
10 POST OFFICE ROAD - SUITE 110  
SILVER SPRING, MD 20910

EXAMINER
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GILLESPIE, BENJAMIN

ART UNIT	PAPER NUMBER
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1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/511,349

Applicant(s)

EUGENE ET AL.

Examiner

Benjamin J. Gillespie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21-37.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claims 21-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language “ratio of equivalent weights” renders the claim indefinite because it doesn’t bear a relationship to stoichiometry. These claims should read “the ratio of the number of equivalents”, or “the ratio of the numbers of equivalent weights”, or “the equivalent ratio”.

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 21-27 and 31-32 rejected under 35 U.S.C. 102(e) as being anticipated by Clemens et al (‘359). Patentee teaches a polyurethane composition comprising the reaction product of diisocyanate, polyester polyol, polyether polyol, terpene-phenolic resin, and amine terminating agent, all through the presence of solvent (Abstract, Col 6 lines 42-53, Col 4 lines 21-22, Example 37). Furthermore, Clemens et al teaches that the isocyanate reactive compounds are present relative to isocyanate containing compounds, wherein the ratio of NCO:OH is 1:1.1 to 1:2.5. In particular the polyether polyols have a molecular weight of at least 2000 g/mol and are primarily dihydroxy and/or trihydroxy (Col 7 lines 20-30, and Col 12 lines 41-43). Finally, Clemens et al teaches the terpene-phenolic resin to consist of NIREZ 2019, now available as

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SYLVARES TP 2019, which has a hydroxyl number range overlapping applicants' claimed range and the amine to react with the isocyanate-terminated polyurethane pre-polymer is disclosed to consist of a polyamine (Example 37, and Col 12 lines 48-50).

3. Regarding applicants' arguments, although Clemens et al does not explicitly disclose that the terpene-phenolic resin SYLVARES TP 2019 is reactive, this property resin is inherent through the presence of hydroxyls in the phenol groups.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-27, 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clemens et al ('359) in view of Reid et al ('449). Aforementioned Clemens et al teaches a polyurethane composition comprising the reaction product of diisocyanate, polyester polyol, polyether polyol, reactive terpene-phenolic resin, and amine terminating agent, but fails to teach a method wherein the pre-polymer formation includes the reaction of diisocyanate, polyester polyol, polyether polyol and a reactive terpene-phenolic resin. Reid et al teaches a polyurethane pre-polymer composition and method for production comprising the reaction product of diisocyanate, polyester and polyether polyol, and a reactive terpene-phenolic resin (Abstract, col 3 lines 55-57, col 4 lines 18, 29-32, 38-40, example 10). What's more, Reid et al teaches through the inclusion of the terpene-phenolic resin in the pre-polymer formation, not only does

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the resulting polyurethane have increased initial green strength, but also an extended the pot life and improved chemical and heat resistance when cured (Col 4 lines 20-27).

5. Therefore it would have been obvious to one skilled in the art at the time of the invention to include in the terpene-phenolic resin in the pre-polymer reaction of Clemens et al as taught by Reid et al, based on both compositions are analogous and the motivation to improve chemical and heat resistance of the polyurethane. With that understanding, Clemens et al goes on to teach the polyurethane composition dissolved in solvent, applied to a substrate to form a continuous film, and removal of the solvent by drying the composition (Col 5 lines 10-12, col 14 lines 29-32). Finally, Clemens et al teaches that the polyurethane, after applied to the substrate backing system, then acts as an adhesive and can be applied to another layer, therefore forming a laminate (Col 14 lines 51-57).

6. The remaining remarks and arguments proposed by applicants' have been addressed in the rejection above.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie

  
**RABON SERGENT**  
**PRIMARY EXAMINER**